

Central Lancashire Online Knowledge (CLoK)

Title	Phenotyping Metastatic Brain Tumors Applying Spectrochemical Analyses:				
	Segregation of Different Cancer Types				
Type	Article				
URL	https://clok.uclan.ac.uk/id/eprint/22834/				
DOI	https://doi.org/10.1080/00032719.2018.1479412				
Date	2019				
Citation	Bury, Danielle Elizabeth, Faust, Guy, Paraskevaidi, Maria, Ashton, Katherine				
	M., Dawson, Timothy P. and Martin, Francis L (2019) Phenotyping Metastatic				
	Brain Tumors Applying Spectrochemical Analyses: Segregation of Different				
	Cancer Types. Analytical Letters, 52 (4). pp. 575-587. ISSN 0003-2719				
Creators	Bury, Danielle Elizabeth, Faust, Guy, Paraskevaidi, Maria, Ashton, Katherine				
	M., Dawson, Timothy P. and Martin, Francis L				

It is advisable to refer to the publisher's version if you intend to cite from the work. https://doi.org/10.1080/00032719.2018.1479412

For information about Research at UCLan please go to http://www.uclan.ac.uk/research/

All outputs in CLoK are protected by Intellectual Property Rights law, including Copyright law. Copyright, IPR and Moral Rights for the works on this site are retained by the individual authors and/or other copyright owners. Terms and conditions for use of this material are defined in the http://clok.uclan.ac.uk/policies/

Supplementary Information

Phenotyping metastatic brain tumours applying spectrochemical analyses: segregation of different cancer types

Danielle Bury^{1,*}, Guy Faust², Maria Paraskevaidi¹, Katherine M. Ashton³, Timothy P. Dawson³ and Francis L. Martin^{1,*}

Table S1 Results of one-way Anova for both Raman and ATR-FTIR spectroscopy to determine statistical difference between all three groups. (KEY: CA – COLORECTAL ADENOCARCINOMA, LA – LUNG ADENOCARCINOMA, MM – MALIGNANT MELANOMA)

Method	Group	Mean difference	95% CI	<i>P</i> -value
Raman	CA vs. LA	0.03	-0.01 - 0.06	0.19
	CA vs. MM	-0.23	-0.260.20	<0.0001
	LA vs. MM	-0.25	-0.290.22	<0.0001
IR		-0.02	-0.030.00	0.01
	CA vs. MM	-0.10	-0.110.08	<0.0001
	LA vs. MM	-0.08	-0.090.06	<0.0001

¹School of Pharmacy and Biomedical Sciences, University of Central Lancashire, Preston PR1 2HE, UK

²Department of Oncology, University Hospitals of Leicester NHS Trust, Leicester, Leicestershire, UK

³Department of Neuropathology, Royal Preston Hospital, Lancashire Teaching Hospitals NHS Trust, Sharoe Green Lane, Preston PR2 9HT, UK

Table S2 Results of a student's t-test for Raman and ATR-FTIR spectroscopy to determine statistical difference between adenocarcinoma and MM. (Key: MM = metastatic melanoma, AD = adenocarcinoma)

Method	Group	Difference between means	95% CI	<i>P</i> -value
Raman	MM vs. AD	0.24+/- 0.01	0.22 – 0.27	<0.0001
IR	MM vs. AD	0.09 +/- 0.01	0.08 – 0.10	<0.0001